

Translation

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PATENT COOPERATION TREATY



PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference KUP-D02-40	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/JP2002/007963	International filing date (day/month/year) 05 August 2002 (05.08.2002)	Priority date (day/month/year)
International Patent Classification (IPC) or national classification and IPC A61N 1/365		
Applicant JAPAN AS REPRESENTED BY PRESIDENT OF NATIONAL CARDIOVASCULAR CENTER		

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>3</u> sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>	
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>	

Date of submission of the demand 23 February 2004 (23.02.2004)	Date of completion of this report 11 November 2004 (11.11.2004)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2002/007963

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is language of a translation furnished for the purpose of:

- ☐ international search (under Rules 12.3 and 23.1(b))  
☐ publication of the international application (under Rule 12.4)  
☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

☐ The international application as originally filed/furnished

☒ the description:

pages \_\_\_\_\_ 1-25 \_\_\_\_\_, as originally filed/furnished

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☒ the claims:

pages \_\_\_\_\_ 5 \_\_\_\_\_, as originally filed/furnished

pages\* \_\_\_\_\_ 1, 2, 4, 6 \_\_\_\_\_, as amended (together with any statement) under Article 19

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☒ the drawings:

pages \_\_\_\_\_ 1-8 \_\_\_\_\_, as originally filed/furnished

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☒ The amendments have resulted in the cancellation of:

☐ the description, pages \_\_\_\_\_

☒ the claims, Nos. \_\_\_\_\_ 3 \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (*specify*): \_\_\_\_\_

☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages \_\_\_\_\_

☐ the claims, Nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (*specify*): \_\_\_\_\_

☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

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## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	1, 2, 4, 5	YES
	Claims	6	NO
Inventive step (IS)	Claims	1, 2, 4, 5	YES
	Claims	6	NO
Industrial applicability (IA)	Claims	1, 2, 4-6	YES
	Claims		NO

## 2. Citations and explanations

Document 1: JP 10-277165 A (ELA Medical SA), 20 October 1998, entire text

## Claim 6

Claim 6 describes a medical treatment system for cardiac insufficiency, said system being provided with a cardiac activity detection means, a calculation means, and a nerve stimulation means. Meanwhile, newly cited document 1 discloses a device for treating cardiac insufficiency, said device being provided with a constitution for detecting ventricular events, a research means, and a means for applying a stimulation pulse via electrodes.

The nerve stimulation means described in claim 6 is recognized as a means for applying a stimulus to an electrode, and therefore is recognized as a device provided with the same constitution as the constitution disclosed in document 1.

## Claims 1, 2, and 4

None of the documents cited in the international search report discloses or suggests a constitution for a biological activity-based treatment system or the like, characterized in that said constitution provides a calculation means for calculating a stimulation signal for

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a living organism using the convolution integral of an impulse response calculated beforehand from normal biological activity and the biological activity signal detected by the biological activity detection means, and outputting said living organism stimulation signal.

Claim 5

None of the documents cited in the international search report discloses or suggests a constitution for a blood pressure regulation system, characterized in that said constitution provides a blood pressure detection means, a calculation means, and a stimulation means for regulating blood pressure by stimulating a vascular sympathetic nerve.